

Review:

- What is a fulcrum point?
- What is Force?
- What are parts of a lever?

***Lesson: Building a Catapult***

What is a Catapult? - Catapults are a lever and were used as weapons throughout history.

***Rubber Band Powered Catapults***

-Students will be building a rubber band powered catapult.

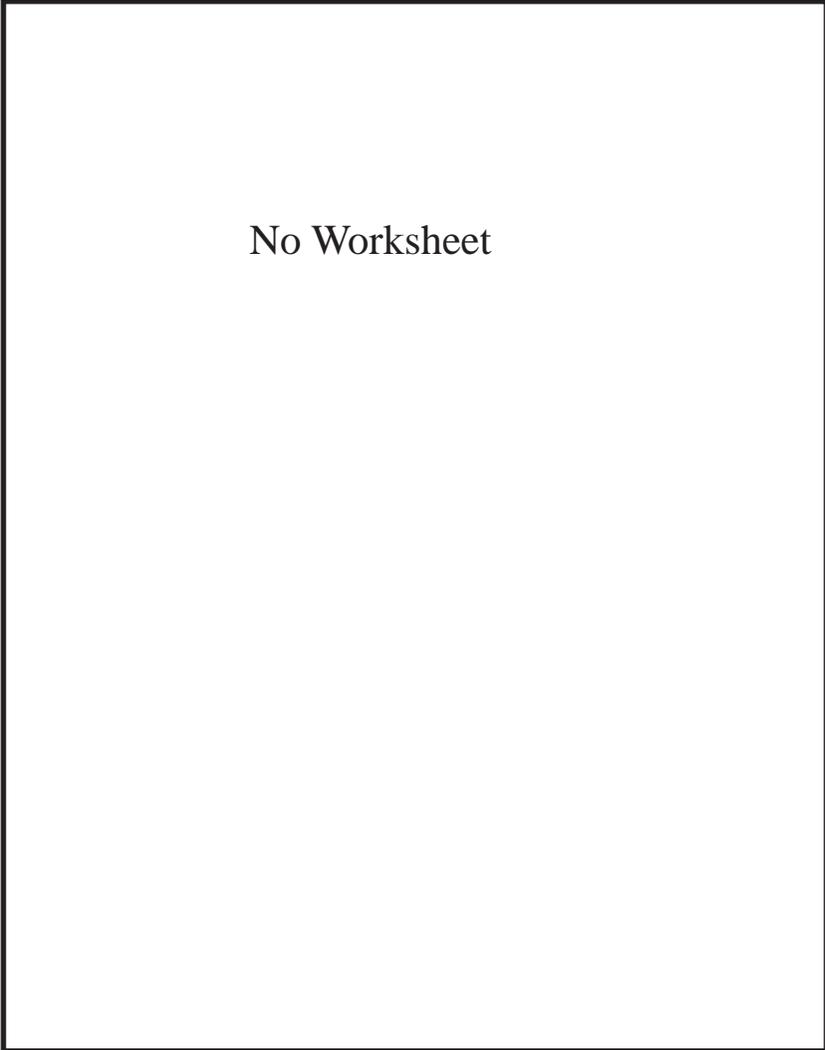
***Rubber Bands have ENERGY!***

- Potential & Kinetic Energy
  - Potential - Stored Energy
  - Kinetic - Energy in Motion

***Example*** - When you stretch a rubber band and hold it in place, it has **potential energy**. Once you let go, it flies through the air and now it has **kinetic energy**.

***1st Law of Thermodynamics*** - Energy can not be created or destroyed, but it can be transferred from one form to another. Like potential to kinetic energy.

**QUESTION-** What happens if you have more potential energy in the rubber band of your catapult?



***Challenge 1 - Individual or teams of 2***

- Build a basic(the same one as the example) rubberband powered catapult that can launch a 2x2 brick 5 feet

***Challenge 2 - Individual or teams of 2***

- Modify the basic catapult so it can launch a 2x2 brick 8 feet.(advanced class 12 feet)

***Ultimate Challenge- Individual or teams of 2***

- Who can launch a 2x2 brick the furthest